

US EPA ARCHIVE DOCUMENT

Appendix E-1. Number of Fish Consumption Advisories

Jurisdiction	Rivers	Lakes, Reservoirs, Ponds	Great Lakes	Estuaries	Bayous	Coastal	Wetland	Multi-class Waters	Statewide	Total Advisories	Comment
Alabama	9	3				1				13	
Alaska										0	
American Samoa				1						1	
Arizona	3	2								5	
Arkansas	8	9			3			1		21	
California	4	9		2		11		1		27	
Colorado		11								11	
Connecticut	4	6		1					1	12	
Delaware	6	2		6						14	
District of Columbia									1	1	
Florida	28	52				8		10		98	
Georgia	61	31		3			1			96	
Hawaii	2			1						3	
Idaho		1								1	
Illinois	14	12	1							27	
Indiana	117	50	1						1	169	
Iowa	1	1								2	
Kansas	10	1								11	
Kentucky	4	1						1		6	
Louisiana	6	9		1	5	1		1		23	
Maine	10					1			2	13	
Maryland		1		2						3	
Massachusetts	17	55		4		1		1	1	79	
Massachusetts - Federal		2								2	
Michigan	58	46	14				1		1	120	
Michigan - Tribal		13								13	
Minnesota	85	739	1							825	
Mississippi	8	4				1				13	
Missouri	4							2		6	Missouri has one regional advisory included in the total for Multi-class.
Montana	3	20								23	
Nebraska	19	15								34	
Nevada	1	1								2	
New Hampshire	2	1				1			1	5	
New Jersey	14	24		6		2		1	1	48	
New Mexico	3	23								26	
New York	23	41	8	3		3			1	79	
North Carolina	6	8		1				1	1	17	North Carolina has one regional advisory included in the total for Multi-class.
North Dakota	2	18								20	
Ohio	45	4	2						1	52	
Oklahoma	1	1								2	
Oregon	6	6								12	
Pennsylvania	22	2	2	1						27	
Puerto Rico										0	
Rhode Island	1					1				2	
South Carolina	15	10						1		26	
South Dakota										0	
Tennessee	7	9						1		17	

Data from the National Listing of Fish and Wildlife Advisories.  
Advisories issued by the state, cities, counties, and local health departments were combined in this report.  
Advisories on canal waters are included in the total for rivers.

Appendix E-2. Number of Fish Advisories Caused by Individual Pollutants

Jurisdiction	Mercury	PCBs (Total)	Chlordane	Dioxins	Other Pesticides	DDT, DDE, DDD	Selenium	Comment
Alabama	4	5	3			2		
Alaska								
American Samoa	1	1				1		
Arizona	2		3		3	3		
Arkansas	19	1		1				
California	11	13	1		1	13	3	
Colorado	8		3		3		1	
Connecticut	5	6	1					Connecticut has a statewide advisory for mercury.
Delaware		13		1	1			
District of Columbia		1						The District of Columbia has a statewide advisory for PCBs.
Florida	97			1				
Georgia	80	25	1		1	1		
Hawaii		1			1			
Idaho	1							
Illinois	2	18	9					
Indiana	126	125						Indiana has statewide advisories for mercury and PCBs.
Iowa		2	1					
Kansas			11					
Kentucky	1	5	1					
Louisiana	17	4		2				
Maine	1	10		8				Maine has statewide advisories for cadmium and mercury.
Maryland			3					
Massachusetts	56	20	4	1		3		Massachusetts has a statewide advisory for mercury.
Massachusetts - Federal	2							
Michigan	40	104	14	7		1		Michigan has a statewide advisory for mercury.
Michigan - Tribal	13							
Minnesota	821	83						
Mississippi	8	5		1				
Missouri		4	4					
Montana	22	4						
Nebraska	12	22			12			
Nevada	2							
New Hampshire	2	2		1				New Hampshire has a statewide advisory for mercury.
New Jersey	30	12	6	9				New Jersey has a statewide advisory for mercury.
New Mexico	26							
New York	17	47	14	8	8	4		New York has statewide advisories for chlordane, DDT, mirex, and PCBs.
North Carolina	10			5			2	North Carolina has a statewide advisory for mercury.
North Dakota	20							

\* Percentage of 2,506 total fish advisories in effect.

Appendix E-3. Shellfish Harvesting Restrictions due to Pathogens Reported by States, Territories, and Commissions

Jurisdiction	Number of Waterbodies with Restrictions	Approved (sq. miles)	Conditionally Approved <sup>a</sup> (sq. miles)	Restricted <sup>b</sup> (sq. miles)	Prohibited <sup>c</sup> (sq. miles)	Management Closures <sup>d</sup> (sq. miles)	Total Area Affected <sup>e</sup> (sq. miles)	Comment
Alabama								
Alaska								
California								
Connecticut								
Delaware								
Delaware River				97.00			97.00	
District of Columbia								The District of Columbia prohibits commercial harvest of shellfish in all its waters.
Florida								
Georgia		49.71			395.00		395.00	
Guam	0	0.00	0.00	0.00	0.00	0.00	0.00	Officially, there are no designated shellfish collection areas for Guam.
Hawaii	0						0.00	
Interstate Sanitation Commission								
Louisiana	26							
Maine								
Maryland	37	1,665.90	68.08	103.11	0.00		171.19	Maryland does not routinely monitor for human pathogens; fecal coliform bacteria are used as an indicator for pathogenic organisms. The State also requires a sanitary survey to check for pollution sources that show a potential for human health risks.
Massachusetts	12	2,185.89	41.54		240.48	259.72	541.74	
Mississippi								
N Mariana Islands								
New Hampshire	11	11.40	0.50	1.50	14.30	0.50	16.80	The 54 sq mi of open ocean water w/in NH are also closed for shellfishing. This is not due to elevated bacteria concentrations; rather, it is because a sanitary survey of the area has not been recently conducted in accordance with NSSP guidelines.
New Jersey		798.00	113.00		141.00		254.00	These values include both estuary/bay and ocean waters.
New York		1,562.50			312.50		312.50	
North Carolina								
Oregon	7	3.59	58.01				58.01	
Puerto Rico								
Rhode Island	39	146.08	24.06	1.94	40.45		66.45	
South Carolina	122	621.11	6.40	147.54	36.19	76.32	266.45	Waters that South Carolina listed both as prohibited due to poor water quality and management closures were reported as prohibited.

## Appendix E-3. Shellfish Harvesting Restrictions due to Pathogens Reported by States, Territories, and Commissions

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Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

Jurisdiction	Urban Runoff/Storm Sewers		Municipal Discharges		NPS (General)		Point Sources (General)		Industrial Discharges	
	Number of Restrictions	Sq. Miles	Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles
Alabama										
Alaska										
California										
Connecticut										
Delaware										
Delaware River						97		97		
District of Columbia										
Florida										
Georgia	3	127	7	127	10	356	9	162		
Guam										
Hawaii	0	0	0	0	0	0	0	0	0	0
Interstate Sanitation Commission										
Louisiana										
Maine										
Maryland			1	1.48	33	80.27			4	9.58
Massachusetts										
Mississippi										
N Mariana Islands										
New Hampshire					11	16.8				
New Jersey		47		3						
New York										
North Carolina										
Oregon	2	25.79	6	54.42	6	54.42			5	43.48
Puerto Rico										
Rhode Island			16		25				16	
South Carolina					70	153.85	43	36.19		



Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

Jurisdiction	CSOs		Septic Tanks		Marinas		Comment
	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	
Alabama							
Alaska							
California							
Connecticut							
Delaware							
Delaware River							Sources identified using best professional judgement.
District of Columbia							The District of Columbia prohibits commercial harvest of shellfish in all its waters.
Florida							
Georgia					3	66	An additional 3 restrictions affecting 66 square miles are due to industrial nonpoint sources.
Guam							
Hawaii	0	0	0	0			
Interstate Sanitation Commission							
Louisiana							
Maine							
Maryland			2	6.44			for human pathogens; fecal coliform bacteria are used as an indicator for pathogenic organisms. The State also requires a sanitary survey to check for pollution sources that show a potential for human health risks.
Massachusetts							
Mississippi							
N Mariana Islands							
New Hampshire							The 16.8 square miles include 0.5 square miles that are classified "conditionally approved" which are open during dry weather but closed after certain rain events.
New Jersey		5				39	Values are for bay waters. New Jersey reports sources of restrictions in percentages - 30% are due to urban runoff, 2% to municipal discharges, 3% to CSOs, and 25% to marinas.
New York							
North Carolina							
Oregon			7	58.01			
Puerto Rico							
Rhode Island	5		14		18		
South Carolina							

Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

Jurisdiction	Urban Runoff/Storm Sewers		Municipal Discharges		NPS (General)		Point Sources (General)		Industrial Discharges	
	Number of Restrictions	Sq. Miles	Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles
Texas										
Virgin Islands										
Virginia										
Washington										
Total	5	199.79	30	185.9	155	758.34	52	295.19	25	53.06

Appendix E-4. Sources Associated with Shellfish Harvesting Restrictions due to Pathogens

Jurisdiction	CSOs		Septic Tanks		Marinas		Comment
	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	Number of Restrictions	Sq. Miles	
Texas							
Virgin Islands							
Virginia							
Washington							
Total	5	5	23	64.45	21	105	

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
<i>Agua Caliente Band</i>				
Alabama	12	7	Fecal coliforms from sanitary sewer overflow; each restriction a one-time event.	
Alaska				
Arizona		2	Fecal coliform in Lake Havasu and Slide Rock State Park. Possible sources include wastewater disposal, natural sources, and recreation.	
Arkansas				
<i>Augustine Band</i>				
California	187		Rain, construction, sewage, storm runoff, urban runoff, pump failure, inadequately treated sewage, line blockage, and syringes found on beach.	
Colorado				
Connecticut				
<i>Cortina Rancheria</i>				
<i>Coyote Valley Reservation</i>	4	4	Unidentified foaming agent: MBAS tests detected extremely high concentrations one week in July. Possible dumping or septic system failures upstream.	Swimming and fishing not recommended.
Delaware				
Delaware River	0	0		
District of Columbia				
Florida				
Georgia	1	1	Fecal coliform	
Guam	1	1	Tanguisson Beach has been closed to the public since 1991 due to toxics found in seaweed.	
Hawaii	0	0		There were no beach closures, but ten incidents required posting of beaches.
Idaho	5	5		
Illinois				
Indiana				

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
Interstate Sanitation Commission		80	Elevated levels of bacteria, sewage spills, sewage treatment facility malfunctions, untreated sewage discharges, and floating mat of vegetation.	
Iowa	1	1	High levels of indicator bacteria (fecal coliform) at swimming beach, August 1997.	Follow-up monitoring showed (1) source of bacteria was population of Canada geese and (2) bacteria levels < EPA criteria.
Kansas				
Kentucky	3	10	Fecal coliform contamination.	
<i>La Jolla Band of Indians</i>	0	0		
Louisiana	8		Fecal coliform and sediment contamination	
Maine				
<i>Manzanita Band</i>	0	0		
Maryland	38	29	Bacteria from runoff, septic discharges, sewer overflow, recreational activities, wildlife, and other sources.	Bathing advisories from local health departments are not identified as restrictions or closures.
Massachusetts				Massachusetts does not compile monitoring data on beach data on a statewide basis.
Michigan				
Minnesota				
Mississippi				
Missouri				
Montana				
N Mariana Islands				
Nebraska	0	0		
Nevada				
New Hampshire	6	4	4 beaches in '96 and 2 in '97 were posted (but not closed) due to bacteria exceedances from Canadian geese (1 beach) and high swim loads (other 3).	
New Jersey				
New Mexico				
New York				
North Carolina				
North Dakota	0	0		
Ohio				

Appendix E-6. Contact Recreation Restrictions Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Contact Recreation Restrictions	Number of Sites Affected	Reasons for Restriction	Comment
Ohio River Valley				
Oklahoma	0			
Oregon	0	0		
Pennsylvania				
Puerto Rico				
Rhode Island	2	2	Town of Barrington closed town beach due to high fecal coliform; Town of Warwick has closed Little Pond for the last three years.	
South Carolina	27	17	Exceeded acceptable fecal coliform levels.	
South Dakota	29	38	Fecal coliform	
Tennessee	24	36	Bacteriological contamination from wastewater, stormwater, and septic tanks.	
Texas				
<i>Torres-Martinez Desert Band</i>				
<i>Twenty-Nine Palms Band</i>				
Utah				
Vermont	7	3	Heavy rains resulting in urban runoff containing pollutants, faulty septic systems, and other sources of bacteria.	
Virgin Islands				
Virginia				
Washington				
West Virginia				
Wisconsin				
Wyoming	0	0		
<i>Yavapai-Prescott Reservation</i>				
Total	355	240		

## Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern
<i>Agua Caliente Band</i>					
Alabama					
Alaska					
Arizona					
Arkansas					
<i>Augustine Band</i>					
California					
Colorado					
Connecticut					
<i>Cortina Rancheria</i>					
<i>Coyote Valley Reservation</i>	1	1	1		Non-specified household toxics
Delaware					
Delaware River					
District of Columbia	2	2		Trace metals, PAHs, and PCBs.	
Florida					
Georgia					
Guam					
Hawaii		13		Pesticides, metals (lead, arsenic)	
Idaho					
Illinois					
Indiana					
Interstate Sanitation Commission					
Iowa	19	16	0	Toxic metals, organochlorine compounds	None (Iowa does not have sediment criteria)
Kansas					
Kentucky	1	1		PCBs	
<i>La Jolla Band of Indians</i>					
Louisiana		3			
Maine					
<i>Manzanita Band</i>					
Maryland					
Massachusetts		24		Metals (As, Pb, Hg), priority organics (PCBs, PAHs, dioxin), oil and grease, pesticides.	
Michigan					
Minnesota					

## Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Sources of Contaminants	Comment
<i>Agua Caliente Band</i>		
Alabama		
Alaska		
Arizona		
Arkansas		
<i>Augustine Band</i>		
California		
Colorado		
Connecticut		
<i>Cortina Rancheria</i>		
<i>Coyote Valley Reservation</i>	Dumpster above Russian River	Recycling and demonstration transfer station planned and imminent.
Delaware		
Delaware River		
District of Columbia		
Florida		
Georgia		
		Guam does not currently have provisions for the collection and analyzation of sediments - an outside study should be available for review in 1998.
Guam		
Hawaii		
Idaho		
Illinois		
Indiana		
Interstate Sanitation Commission		
		Data from USGS NAWQA study and from US Army Corps of Engineers monitoring
Iowa	Natural, agriculture, unknown	
Kansas		
Kentucky		
<i>La Jolla Band of Indians</i>		
Louisiana		
Maine		
<i>Manzanita Band</i>		
Maryland		
Massachusetts		
Michigan		
Minnesota		



Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern
Mississippi		16		Priority organics, nonpriority organics, metals, unknown toxicity	
Missouri					
Montana					
N Mariana Islands					
Nebraska					
Nevada					
New Hampshire					
New Jersey					
New Mexico					
New York					PCBs and other priority organics
North Carolina					
North Dakota		1		Pesticides	
Ohio					
Ohio River Valley					
Oklahoma					
Oregon		1		Arsenic, creosote, and pentachlorophenol.	
Pennsylvania					
Puerto Rico					
Rhode Island			25		VOCs, chlorinated solvents, hydrocarbons, metals, pesticides, PCBs, and other hazardous materials
South Carolina					
South Dakota					
Tennessee		37	37	Priority organics, lead, mercury, PCBs, dioxin	Priority organics, lead, mercury, PCBs, dioxin
Texas					
<i>Torres-Martinez Desert Band</i>					
<i>Twenty-Nine Palms Band</i>					
Utah					
Vermont					
Virgin Islands					
Virginia					
Washington					
West Virginia					

## Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Sources of Contaminants	Comment
Mississippi	Industrial and municipal point sources, urban runoff/storm sewers, marinas, land disposal, hazardous waste	
Missouri		
Montana		
N Mariana Islands		
Nebraska		
Nevada		
New Hampshire		New Hampshire does not currently have numeric water quality criteria for sediments.
New Jersey		
New Mexico		
New York		Refers to impairment in Hudson River and Lake Ontario.
North Carolina		
North Dakota	Suspect abandoned landfill and pesticide formulating plant	
Ohio		
Ohio River Valley		
Oklahoma		
Oregon	Superfund site	
Pennsylvania		
Puerto Rico		
Rhode Island		These are site remediation projects.
South Carolina		
South Dakota		
Tennessee	Past industrial discharges, Superfund sites, mining activities	Tally compiled from state's 1998 303(d) list.
Texas		
<i>Torres-Martinez Desert Band</i>		
<i>Twenty-Nine Palms Band</i>		
Utah		
Vermont		
Virgin Islands		
Virginia		
Washington		
West Virginia		

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Number of Sites Assessed	Number of Sites with Toxics	Number of Sites of Concern	Contaminants Detected	Contaminants of Concern
Wisconsin					
Wyoming					
<i>Yavapai-Prescott Reservation</i>					
Total	23	115	63		

Appendix E-10. Sediment Contamination Reported by States, Tribes, Territories, and Commissions

Jurisdiction	Sources of Contaminants	Comment
Wisconsin		
Wyoming		
<i>Yavapai-Prescott Reservation</i>		
Total		